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ABSTRACT

The National Center for Higher Education Management Systems (NCHEMS) has completed the development and demonstration of a library statistical data base addressing the management needs of academic and public libraries. A pilot test of the data base was conducted in late Spring of 1977 in five Pennsylvania academic libraries to determine feasibility and utility of data collection techniques, cost constraints limiting data collection; sophistication of existing data systems within the pilot-tested libraries; and the areas of the data base requiring further improvement. This report documents the methodology and major findings of the pilot test and provides an evaluation of the data base in a working environment. The general finding was that, although the data base needed certain revisions and refinements, it represented a valuable and necessary management tool for library decision making. Problem areas in the data base were identified as internal inconsistencies in the formats and levels of aggregation employed in the pilot test instrument; variances in materials and collection descriptors; and costing of selected activities within programmatic areas. Further testing of the data base was recommended prior to its implementation and adoption. Appendices include copies of the pilot test instrument and the evaluation instrument, a summary evaluation report, and a summary of actions taken by NCHEMS as a result of the pilot test.
(Author/JPF)

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PILOT TEST AND DEMONSTRATION OF THE LIBRARY STATISTICAL DATA BASE

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1977

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ABSTRACT

The development of a library statistical data base has concentrated on the management information needs of academic and public libraries. In order to test the structure of information in academic settings, the library statistical data base was employed in five academic libraries. As a result of this test, the system was refined and improved. The following report documents the methodology and major findings of the pilot test and provides an evaluation of the data base in working environments.

The general finding of the pilot test was that, although the data base needed certain revisions and refinements, it represented a valuable and necessary management tool for library decisionmaking.

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I. INTRODUCTION

The National Center for Higher Education Management Systems (NCHEMS) has completed the development and demonstration of a library statistical data base* addressing the management information needs of academic and public libraries. This report is a summary of the demonstration of that data base system in academic libraries.

In order to demonstrate and evaluate the data base structure, the system of information was tested in five Pennsylvania State Colleges:

- East Stroudsburg State College,
- Indiana University of Pennsylvania,
- Lock Haven State College,
- Mansfield State College, and
- Shippensburg State College.

The primary reasons for pilot testing the data base structure were to determine: the feasibility and utility of data collection; the cost constraints limiting data collection; the sophistication of existing data systems within the pilot-tested libraries; and, the areas of the data base requiring further improvement. Three of the participating institutions submitted detailed data and evaluative information to NCHEMS as a result of the pilot test.

The instrument used in the pilot test appears in Appendix A. As a result of the pilot and field review of the data base, sets of data and descriptors exhibited in Appendix A were refined and improved.

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In order to supplement data supplied by the pilot test, NCHEMS also accessed data collected by the Council for the Advancement of Small Colleges (CASC) National Research and Management Project. The CASC project, Library Cost Services and Analysis Task Force (chaired by Willis M. Hubbard of Stephens College), collected data from 43 small college libraries. The purposes of this survey were to obtain median distributions of library budgets and their allocation to salaries and wages, library materials, and other expenditures. These data provide an overview of productivity measured by resources consumed at participating libraries. Data on operations and staffing resulting from the CASC survey were provided to NCHEMS for further examination of relationships between expenditures and activity.

For the most part, data collected by CASC are less detailed than those collected during the Pennsylvania pilot test. Most libraries participating in the CASC survey represent the end points of a distribution which would require data from larger academic libraries to verify certain indicative relationships.

II. SCOPE OF THE PILOT TEST AND DEMONSTRATION

At the time of the pilot test, the present structure of the data base (separate components for resources and programmatic activities as outlined in Figure 1) was not fully developed. The only resource category measured during the pilot was collection. Program measures examined in the context of the pilot test included financial, personnel, and activity. These areas of the data base were selected for inclusion

Figure 1

SUMMARY OF

MANAGEMENT INFORMATION SYSTEM FOR LIBRARIES

Organizational Goals and Objectives

LIBRARY ENVIRONMENTAL DATA
- External Setting
- Internal Organization
- Target Group

LIBRARY RESOURCES DATA
- Collection Resources
- Human Resources
- Financial Resources
- Facility Resources

PROGRAM DATA

Programmatic Activities (Functions) / Categories of Measures	Revenue/ Expenditure Measures	Personnel Measures	Facilities Measures	Activity Measures	User Measures	Outcome/ Performance Measures
Administrative Services						
User Services						
Technical/Production Services						
Instructional Services						
Support Services						

in the pilot test due to their fundamental importance to the structure, and because other data collection efforts -- such as the National Center for Education Statistics (NCES) Higher Education General Information Survey (HEGIS) -- do not presently collect these data to the extent required in the data base. The pilot test data, then, served to verify the availability of requested information.

The public library component of the data base was not tested formally during the course of the project. However, public library data formats and definitions were generally reviewed within the library community, and are believed to be useful in this setting.

Although the data base system has now been tested within the academic library community and reviewed in the context of the public library community, further testing is recommended prior to implementation and adoption of the library statistical data base. It should be recalled that the testing of the data base was selective, and the data base itself was evolving simultaneous to, and as a result of, the pilot test.

III. PILOT TEST PROCEDURES

NCHEMS staff met with Dr. Scott Bruntjen, Shippensburg State College, and Russell Emele, Stroudsburg State College, to review pilot test strategies and to determine the extent of evaluation or feedback necessary from pilot test institutions. Without prior training or assistance, each of the pilot test libraries received an abbreviated publication of the Formats and Definitions (Appendix A). No instructional materials were included. Dr. Bruntjen designed an evaluation instrument (Appendix B) which was completed by three of the participating libraries

and which addressed each of the almost 500 data elements requested during the pilot. Specifically, the evaluation instrument assessed the clarity of definitions and formats; the difficulty incurred with data collection; the value of the information (cost of data collection versus the utility of the information); and, other factors pertinent to the data category and which influenced the quality of the data base.

Data required for the fiscal period covered by the report were obtained from existing statistical reports maintained by the library or by the institution. Since no revisions were made to existing data systems (nor encouraged) in anticipation of the pilot test, the availability of requested information varied. Further, the evaluation of fiscal-year data was influenced largely by the current data collection practices of participating institutions. Other types of data required, particularly for activity measurement, were based upon one-week observations. This procedure simulated "typical week" data collection employed by HEGIS/LIBGIS surveys.

The pilot test was initiated in the late spring of 1977; consequently, data collected were not considered baseline information, nor was the pilot intended to produce such information. Due to the untried nature of many categories of information requested during the pilot test, and the possible misinterpretation of the results, it was agreed prior to the pilot that data collected would remain substantially confidential. These data were, however, analyzed by NCHEMS staff to isolate data categories that potentially could be consolidated in future iterations of the data base, and to determine data combinations that yield worthwhile and useful information.

IV. EVALUATION OF THE DATA BASE

The general finding of the pilot test was that, although the data base needed certain revisions and refinements, it represented a valuable and necessary management tool for library decision making. Specific recommendations made by the pilot-tested libraries were that:

- Data requirements within the system need to be reduced before the system can be cost effective; optional levels of data aggregation would counterbalance these extensive and detailed requirements.
- A tool for staff time analysis (similar to the faculty analysis tool[1] developed by NCHEMS) is needed to determine present allocations of personnel across programmatic categories.
- The use of the "typical week" for activity measures fosters noncomparability of data among libraries by allowing the library to select dates. Specifically chosen dates, or specified sampling procedures, may be more appropriate.
- Future refinement of the data base should include consideration of deferred costs (e.g., cost of recataloging abbreviated cataloging items) and penalty costs.

It was learned, during the course of the pilot test, that each participant maintained different sets of data, spanning from exacting detail to minimal information. Similarly, the accessibility of data maintained by the institution to the library manager varied with each institution. In this sense, the data base can facilitate standardization

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[1] Romney, Leonard C., Faculty Activity Analysis: Overview and Major Issues. Technical Report 24. Boulder, Co: National Center for Higher Education Management Systems, Dec. 1971.

in record keeping, and in information available to library managers, among institutions.

A summary evaluation report submitted to NCHEMS at the conclusion of the pilot appears in Appendix C. Evaluation detail, and a summary of action taken by NCHEMS as a result of the pilot test, appears in Appendix D.

V. DATA ANALYSIS

A. Data Sets

The CASC data set, submitted on cards, was supplemented by selected elements from currently available HEGIS survey results. These data were mapped into corresponding, or most nearly equivalent, data categories employed within the library data base file structure. Data were converted to a format suitable for MARK IV file creation through a short FORTRAN program created for this purpose. Programmatic data reflected either total library figures or Level I (of Figure 2) aggregation (i.e., for Administrative Services, User Services and Technical/Collection Services). Activity measures and collection data were drawn largely from the HEGIS/LIBGIS survey. The CASC data file consisted of 55 elements from each of 43 institutions.

The pilot test data, submitted on formats appearing in Appendix A, were encoded and keypunched. The MARK IV file, consisting of less than 500 elements for each of the pilot test institutions, was created directly from the card deck. Approximately half the data collected from the pilot were filed into the Program Classification Structure (PCS) matrix segment. These data, then, provided a more precise assessment of the matrix structure employed within the data base.

Figure 2

LEVELS OF PROGRAMMATIC ACTIVITIES

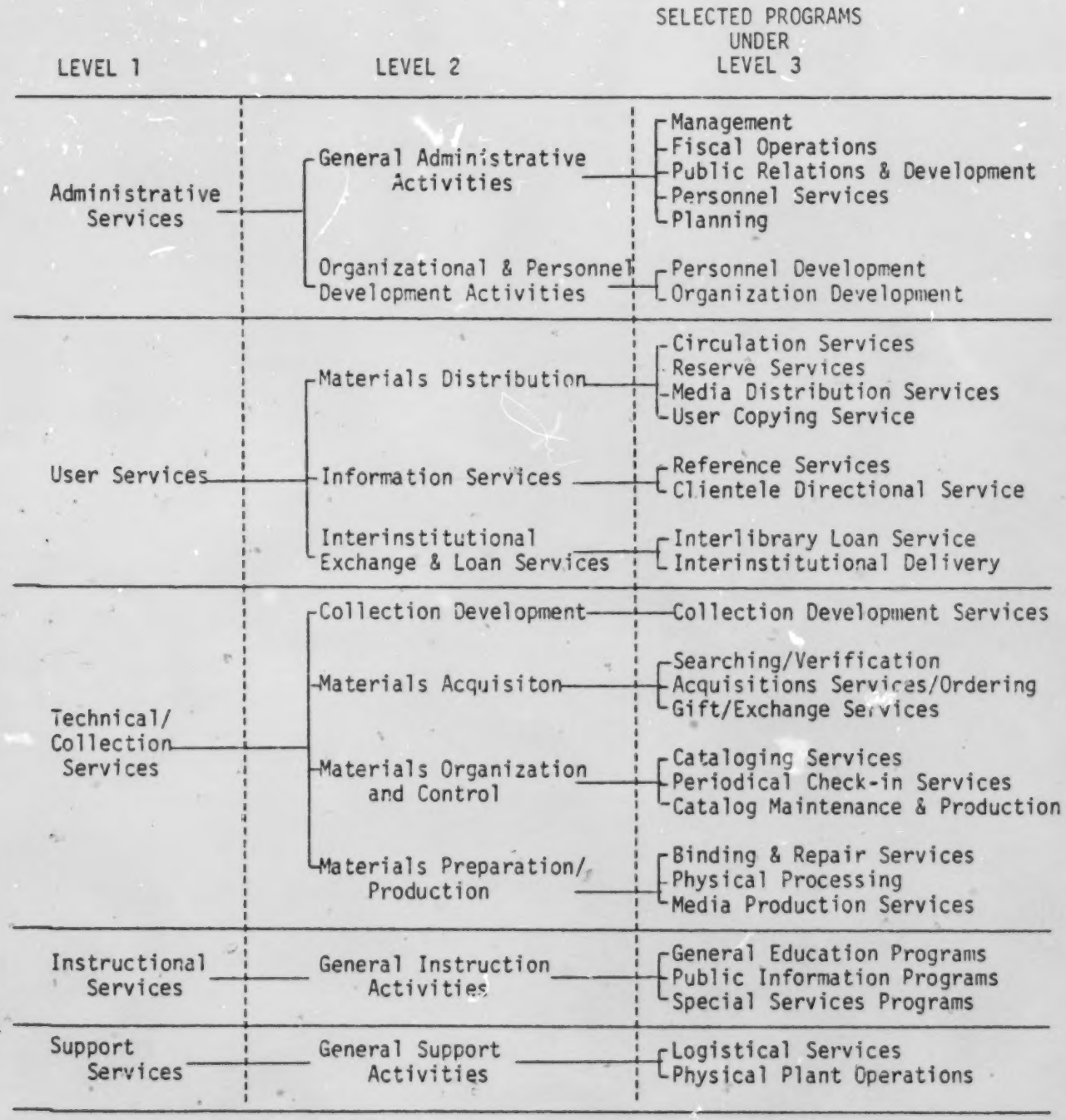

Figure 3 provides a list of the data combinations generated from the CASC and pilot test data sets. Data analyses were provided to each of the participating pilot test libraries, and the CASC Library Cost Services Analysis Task Force.

B. Problems Incurred

Since draft formats and definitions were employed in the pilot test, several inconsistencies went unnoticed until the pilot test results were analyzed. An example of this occurred in the analysis of collections and collection expenditures. The pilot test instrument measured collection size and growth for combined print and print facsimile (i.e., microform) holdings, while materials expenditures measured print and microform acquisitions separately. This inconsistency is also apparent when combining measures of collection with circulation or interlibrary loan activity. Figure 4 demonstrates this problem. Underlying this circumstance is the lack of standardized bibliographic categories whereby materials are counted and considered equivalent for acquisitions, cataloging, circulation, and interlibrary loan.

A secondary problem arising from the pilot test was fostered by the use of varying levels of aggregation throughout the pilot test instrument. Ordinarily, this would not occur since levels of aggregation are tailored to the needs and sophistication of the employing library. However, to fully test the structure, and the levels of aggregation ennumerated in Figure 2, the pilot instrument was internally inconsistent. This inconsistency prohibited certain analysis, particularly costing. As a result, and only for the purposes of testing the structure, speculation and hypothesis was employed to estimate service costs.

Figure 3

GENERAL RATIOS

Type, Variables	Test Data Set CASC	PENN.
COLLECTION		
Growth: additions versus holdings	BC	BC
Collection (bookstock) versus Enrollment*	X	X
Additions (bookstock) versus Enrollment*	X	X
Periodical Subscriptions versus Enrollment*	X	X
Acquisitions Expenditures versus Additions	BC	BC
Periodical Acquisitions Expenditures versus Periodical Subscriptions	X	X
Acquisitions Expenditures by Bibliographic Category versus Total Acquisitions Expenditures	X	X
CIRCULATION		
Circulation versus Collection (bookstock)	X	X
Circulation versus Additions (bookstock)	X	X
Circulation versus Enrollment*	X	X
INTERINSTITUTIONAL EXCHANGE		
Borrowing (Filled) versus Lending (Filled)	X	X
Borrowing versus Circulation	X	X
Borrowing versus Collection (bookstock)	X	BC
Borrowing versus Additions (bookstock)	X	BC
Fill rate: (Number filled versus Number of requests)		BC
% filled with original material		BC
% filled with reproduced material		BC
Lending: same as above 6 done for borrowing		
COLLECTION VERSUS PCS		
Operating Expenditures versus Collection (bookstock)	X	X
Collection (bookstock) versus Library Service Months	X	X
Operating Expenditures versus Circulation	X	X
User Services Expenditures versus Circulation	A	X
Circulation versus User Services Service Months	X	X
Technical Services Expenditures versus Additions (bookstock)	A	X
Additions (bookstock) versus Technical Services Service Months	X	X
Technical Services Expenditures versus Acquisition Expenditures	A	X
Acquisition Expenditures versus Library Operating Expenditures	X	X
Library Operating Expenditures versus Institution Education and General Expenditures (ACRL 6%)	X	

Type, Variables	Test Data Set CASC	PENN.
PCS		
Formats 3, 4, 6, 7, each available cell versus column total	X	X
Formats 3, 4, 6, 7, each available cell versus row total	X	X
Format 4, each level 2 cell versus appropriate Level 1 subtotal		X

KEY:

X Ratio produced

blank Data not available

BC Ratios produced by bibliographic category

* CASC data has two different enrollment figures, FTE and Headcount; two sets of ratios were produced.

A See analysis section for method of estimation of expenditures.

Figure 4

COLLECTION MATRIX INCONSISTENCIES

	Acquisition Expenditures	Collection Volumes & Titles	Additions & Weeding	Interlibrary Loan
Print Only				
Bookstock	X	X	X	
Periodicals	Y	X	X	
Newspapers		X	X	
Other Print		X	X	
Print Facsimile Only	X			
Bookstock		X	X	
Periodicals		X	X	
Newspapers		X	X	
Other Print		X	X	
Print & Print Facsimile				
Bookstock			X	
Periodicals			X	
Newspapers				
Other Print			X	
Nonprint	X	Z	Z	Z
TOTAL	X	X	X	X

Key:

Blank	Data not collected
X	Data collected
Y	Data element includes serials
Z	Data collected in 7 categories

The circulation format was omitted from the test instrument. Available circulation data was total only.

A similar problem inherent in the PCS structure is existent due to the fact that activity data are actually correspondent to Level III of Figure 2. Therefore, activity measures cannot be directly traced to associated costs. Resolution of this problem is complicated by the fact that such activity needs measurement, and the diversity of activity in each program prevents aggregation. Unit costs may be most appropriately measured by special survey.

C. Analysis

As a result of these problems and the dual data sets employed (i.e., CASC and pilot test data), analysis required certain speculative estimation in order to demonstrate system application.

For CASC data, average unit costs for circulation and collection additions, plus the ratio of technical services operating expenses to materials acquisition expense, were estimated. As a rule of thumb, the ratio of departmental costs to total library operating expenses was defined to be equivalent to the ratio of department service months to total library service months. There are some obvious problems in this equivalency, but for the sake of example it proved useful. Using this technique, the following data combinations were examined:

- Circulation versus personnel operating months of user services;
- Estimated user services operating cost versus circulation (i.e., estimated unit costs);
- Bibliographic volumes added versus Technical/Production Services personnel service months;
- Estimated Technical/Production Services operating costs versus bibliographic volumes added (i.e., estimated unit costs; and,
- Estimated Technical/Production Services operating costs versus materials acquisition expenditures.

The Pennsylvania test data provided an opportunity to demonstrate more extensively the capabilities of the library statistical data base. Since operating expenditures data were reported at the second level of aggregation, relative budget allocations to activities could be more accurately deduced. Data on service months, however, were reported at Level I program categories (of Figure 2) and this factor decreased the reliability of personnel allocation estimates at Level II.

The User Services activity was used as a demonstration of the cost allocation capabilities of the library statistical data base. For the three specific subdivisions of User Services -- Materials Distribution, Information Services, and Interinstitutional Exchange and Lending -- the following estimates of user contact were projected:

- Average number of times a user employs this service during the year based on the number of users observed during the pilot test week.
- Percentage of library users using the subject service based on the ratio of users entering the library to employ this service to total entrants during the pilot test week.

Thus, for example, activity directly attributable to Materials Distribution included direct circulation, hours of service, the number of users circulating materials from the general collection, and the number of users circulating materials from the reserve collection.

In addition to these user-related measures, exempt and total personnel expenditures and program operating expenditures were considered. In this manner, resource utilization could be directly linked to activity.

D. File Structure

The file structure is conceptually dictated by the length and tabular format of the information. The FICE Code of the institution was designated as the primary sort/access key. In addition, option for storage of several years' data required that the fiscal time period be designated as the secondary sort/access key.

Allowance for record keeping or data collection at varying levels of programmatic activity (Figure 2) is nontrivial. The majority of the data base information is contained in two segments which can be visualized as distinct matrices. Figures 5 and 6 will aid in this conceptualization.

Figure 5

FILE STRUCTURE-COLLECTION MATRIX

	Acquisition Expenditures	Collection Volumes and Titles	Additions & Weeding	Interlibrary Loan
Print Materials Bookstock Periodicals Newspapers Other	Format 5	Columns of Format 8	Columns of Format 15	Columns of Format 13
Microform (Print Facsimile) Materials Bookstock Periodicals Newspapers Other				
Print & Print Facsimile Materials Bookstock Periodicals Newspapers Other				
Nonprint Materials Audiorecordings Computer Materials Electronic Display Materials Pictorial Materials Three-dimensional Materials Kits Other nonprint				
Other Materials TOTALS				

Figure 6
FILE STRUCTURE-PCS MATRIX

	Source/ Expenditure Data	Operating Expenditures	Service Months		
				Totals	
Administrative Services General Administration Personnel Services	Columns of Format 3	Columns of Format 4	Columns of Format 6 Except Totals		Columns of Format 7 Except Totals
Users Services Materials Distribution Materials Identification Interinstitutional Exchange					
Technical/Production Services Collection Development Materials Acquisition Materials Organization Materials Preparation					
Instructional Services					
Support Services					
TOTALS					

The first matrix contains the data pertinent to the collection, i.e., acquisitions expenditures, bibliographic volumes and titles, additions, weeding, circulation by locale and type, and interlibrary lending and borrowing requests (and number filled). These column headings are arrayed against the bibliographic category, e.g., bookstock, periodicals, microfilm, microfiche, slides, etc. The MARK IV file structure contains thirty category designations and groupings for these categories. Additional categories are trivial extensions of the present structure.

The larger, more complex, matrix segment covers the financial and personnel measures covered in the following four formats:

- Source/Expenditure Data (Format 3)
- Operating Expenditures (Format 4)
- Personnel and Service Months by Functions (Format 6)
- Service Months by Personnel Category and Function (Format 7)

Conceptually, the column headings of this Program Classification Structure (PCS) matrix are equivalent to the column headings of these four tables, with Service Months totals concatenated since they should be equal. The row designations are the programmatic activities at varying levels, from only totals, through level I (Administrative Services, User Services, Technical/Production Services, etc.) to Level II. This is expandable to Level III or beyond as the need arises. While the file structure is designed so that data for these four tables need not be gathered at the same level of activity, the basic analysis, i.e., comparison of one column against another, implies otherwise. In fact,

varying levels of data collection diminish the reliability of unit cost and unit time measures.

Other matrix segments cover the following activities:

- Reference questions by type and source,
- Catalogs in the library by type and catalog maintenance activity,
- Cataloging activity, type of cataloging, i.e., original, brief, etc. by materials descriptors (monograph, serial, etc.)
- Number of hours of user service activities, reserve circulation, and other user service activities by service outlet.

The data elements that do not fit into one of the above matrix segments are allocated to a set or segment of single element items such as FTE enrollment, periodical subscriptions, unrestricted income, users entering the library per typical week, etc. While retrieval of single elements within this matrix structure is complex (due to its hierarchical nature) the use of automatic looping through pieces of a segment and the variable length of file space provide adequate compensation.

E. Major Findings

As ennumerated in earlier sections, several problem areas in the library statistical data base were discovered as a result of the pilot test. These included internal inconsistencies in the formats and levels of aggregation employed in the pilot test instrument; variances in materials and collection descriptors; and, the costing of selected activities within programmatic areas. Many of these issues have been resolved in the final iteration of the Formats and Definitions.

However, problems with the costing of activities remain. In some sense these problems are irreconcilable in a framework intended for record keeping and management. In the future it would be hoped that the system can be a predictive tool employed in planning for changes in services given changes in population, student enrollment, discipline emphasis, etc. In a broad sense this may not require unit costs, but rather an overview as provided by the data base. From the analysis, it is clear that unit costs are most precisely generated from observation, diary or other time-study techniques, rather than a broad record-keeping system.

The pilot test equally underlined the absence of data from current systems maintained by the participating institutions. The types of data presently collected are differently defined or characterized than those of the library statistical data base. An example is interlibrary loan data collected from participating institutions; data currently collected encompasses fill rates, and the types of agencies to which, or from which, requests are issued. The diversity of activity description reflected in institutional data systems, and equally within the Formats and Definitions, warrants continued refinement. This requires agreement and standardization of data descriptors which best suit the needs of the library manager and serve to facilitate comparisons among libraries.

In many instances, data were unavailable or nonexistent. For this reason, it is necessary to begin analyzing the current data collection practices in libraries. Further, when data are available,

the analysis would appear to indicate that data among institutions are noncomparable given differences in counting methodologies (even with the existence of definitions). A system of standard terminology and agreed-upon data collection requirements can potentially counteract these difficulties.

VI. IMPLICATIONS OF THE PILOT TEST AND DEMONSTRATION

The pilot test, as well as the CASC survey, indicate a number of future actions necessary to effect a system of information applicable to a range of libraries:

- The determination of appropriate and agreed-upon descriptors of library activity.
- The distinction between data types that should be collected and could be collected.
- The revision of existing institutional data systems to reflect an overview of the library rather than isolated and unrelated pieces of the library's operations.
- The development of channels for information exchange between similar types of library, and consensus about the types of data that can be meaningfully exchanged.
- The design of methodologies to manipulate data useful to planning and management.
- The reassessment of present data collection techniques within institutions and by external agencies (such as the state library and the federal government.

APPENDIX A

FORMATS AND DEFINITIONS

(PILOT TEST INSTRUMENT)

APPENDIX A

PENNSYLVANIA STATE COLLEGES

PILOT TEST

FORMAT 1

Date_____
Name & Title of Respondent

_____

_____
Telphone Number_____

1. Institution identifiers:

   - Corporate name of institution: _____
   - Address: _____

     _____

2. Fiscal period reported from _____ to _____

3. Number of branch libraries included in this report _____

DEFINITIONS

INSTITUTION IDENTIFIERS: The name, address and code identifying the institution as unique. The institution name, not the name of the library should be used.**

FISCAL PERIOD: A designated period at the end of which a library or library system determines its financial condition and the results of its operations, and closes its books. The period is usually a year, though not necessarily a calendar year. (7)*

BRANCH LIBRARY: A satellite library with separate quarters, a permanent basic collection of books, a permanent staff, and regular schedule, but administered by the central library. In academic institutions a branch typically consists of a special area or subject collections of library materials serviced by its own staff. It is usually located on the same campus as the central library and is centrally administered. (7)**
For reporting purposes, extension center libraries under the administration of the central library should be included.

LOCATION_____

FORMAT 2

SOURCES OF LIBRARY FUNDS

Source of Funds

1. Unrestricted funds:

Tuition and Fees	$_____
Government Appropriations	
Federal Government	$_____
State Government	$_____
Local Government	$_____
Generated Income (sales and services)	$_____
Endowment Income	$_____
Gifts, Contributions	$_____
Other	$_____

TOTAL UNRESTRICTED INCOME $_____

_____

Footnotes

FORMAT 3

SOURCE EXPENDITURE DATA

LOCATION _____
FISCAL PERIOD FROM___ TO_

Source of Income / Expenditure Category	UNRESTRICTED REVENUES	RESTRICTED REVENUES												TOTAL
		Appropriations			Contracts & Grants				Generated Income	Endowmt Income	Gifts, Contbtns	Other	Transfers In	
		Fed.	State	Local	Fed.	State	Local	Pvt.						
ADMINISTRATIVE SERVICES														
USER SERVICES														
TECHNICAL SERVICES														
INSTRUCTIONAL SERVICES														
SUPPORT SERVICES														
TOTAL OPERATING EXPENDITURES														
LIBRARY (COLLECTION) MATERIALS														
CAPITAL EXPENDITURES														
TRANSFERS OUT														
TOTAL EXPENDITURES														

Unexpended Income $_____ Dollar Equivalency of Contributed Services $_____

Dollar Equivalency of Donated Materials $_____

SOURCE OF LIBRARY FUNDS--DEFINITIONS

REVENUES AND TRANSFERS-IN

The following definitions apply equally to restricted and unrestricted funds:

Unrestricted Funds: Revenues received by the institution without stipulation regarding purpose by the source, and may be expended at the discretion of the management. (32)**

Restricted Funds: Revenues received by the institution with the stipulation that such funds be used for the purpose specified by the donor (source). (32)**

Source of funds are considered to be the following categories as defined.

Tuition and Fees: Tuition and fees include all tuition and fees assessed (net of refunds) against students for current operating purposes. (32)**

Governmental Appropriations-Federal
Governmental Appropriations-State
Governmental Appropriations-Local: Governmental appropriations include those monies received from or made available to an agency or institution through acts of a legislative body. They do not include governmental grants or contracts. These three categories include all such unrestricted appropriations and all restricted appropriations to the extent expended for current operations. Funds disbursed for the account of the library or institution by a governmental agency, such as payments into a state retirement system on behalf of the library or institution, would be included in these categories.

Governmental appropriations should be categorized by the governmental level (federal, state, or local) of the legislative body funding the appropriation. The following criterion should be used in determining the legislative level of the funder:

> The funder level is the same as the level of that agency making the decision that the monies will be appropriated for the particular purpose for which they are ultimately expended.

For example, if the federal government stipulates a specific use for particular monies and those monies subsequently are only administered by the state, the funds would be classified as federal monies. However, if the federal government distributes funds to the state for unspecified general purposes (for

example, general revenue sharing) and the state then appropriates all or a portion of those monies to the library or institution, the funds received by the institution should be classified as state monies rather than federal monies. Similarly, if the state distributes funds to the city for unspecified general purposes, and the municipal government appropriates a portion of these monies to the library, the funds received should be classified as local monies. (32)**

Governmental Grants and Contracts-Federal
Governmental Grants and Contracts-State
Governmental Grants and Contracts-Local: Governmental grants and contracts include revenues from governmental agencies that are received or made available for specific projects or programs. Examples are research and demonstration projects, training programs, and similar activities for which amounts are received or expenditures are reimbursable under the terms of a governmental grant or contract.

Governmental grants and contracts should be categorized by the governmental level (federal, state, or local) of the agency providing the funds to the institution. The following criterion should be used in determining which governmental level should be considered the funder:

> The funder level is the same as the level of that agency that makes the decision that the contract will be entered into with, or the grant made to, the institution for the particular purpose for which it was ultimately transacted.

For example, if a federal agency stipulates a specific use for particular monies and those monies are only administered by state agencies, the funds would be classified as federal monies.

Amounts equal to direct costs incurred should be recorded as charges against current restricted funds and reported as Restricted Current Funds revenues. Related indirect costs recovered by the library should be reported as unrestricted revenues. Related indirect costs recovered by the institution of which the library is a part should not be included. (32)**

Private Grants and Contracts: Revenues from private agencies (e.g., foundations) that are received or made available for specific projects or programs. Examples are research and demonstration projects, training programs, and similar activities for which amounts are received or expenditures are reimbursable under the terms of the grant or contract. Amounts equal to direct costs incurred should be recorded as charges against current restricted funds and reported as Restricted Current Funds revenues. Related indirect costs recovered by the library should be reported as unrestricted revenues.

Related indirect costs recovered by the institution of which the library is a part should be excluded.

Private Gifts and Contributions: Private gifts and contributions include amounts from individuals or nongovernmental organizations. Private gifts include those monies received from private donors for which no legal consideration is involved (that is, no specific goods or services must be provided to the donor in return for the monies). This category includes all unrestricted gifts and bequests as well as all restricted gifts to the extent that the monies are expended for current operations.

When donated services represent a significant resource for the library, the value of these donated services should be included in this category. The value of donated services should be determined by relating such services to equivalent salaries and wages (including the normal staff benefits, such as group insurance and retirement benefits) for similarly ranked personnel in the same institution or similar institutions. This gross amount should be reduced by the amount of personal expenses whenever such expenses are incurred on behalf of the contributing personnel (such as in institutions operated by religious groups). An imputed value for donated services should be recorded in this category only if the following circumstances exist: 1) the amount of such donated services is significant when compared to the total revenues for the reporting entity; 2) the services performed are a normal part of the library's programs and would otherwise be performed by salaried personnel; and 3) the institution has a clearly measurable basis for determining the value of such services. (32)**

Self-Generated Income: This category includes all revenues generated from the sales and services of libraries including users fees and cost-recovery charges for services. Examples of such revenues are film rentals, library registration fee, search service fees, booksales, overdue and book replacement fines and interlibrary loan service charges. Also included is income from copying services provided by the library. This income is confined to monies received from library patrons and other institutions or libraries and should not include transferred funds from other institution departments for services rendered. (32)**

Other Sources: This category includes all items of revenue not covered elsewhere. Examples are interest income and gains (net of losses) from investments of unrestricted current funds. (32)**

Transfer-In: Monies transferred from another department in the institution or government structure of which the library is a part specifically as payment for services rendered should be included in this category. Typically, money does not actually change hands, but is transferred between accounts on paper. (32)**

EXPENDITURE CATEGORIES

LIBRARY (COLLECTION) MATERIALS: Expenditures for library materials including print, nonprint, and special collections. Exclude costs for conversion from print to microform of materials already owned by the library. This cost should be entered under Technical Services. Exclude acquisitions of library equipment.**

CAPITAL EXPENDITURES: This activity center is a holding account for any capital expenditures made from the library's current funds. Capital expenditures include monies expended for land, land improvements, buildings, additions to buildings, and capital equipment. Capital equipment is defined as any equipment items costing more than $500 and having an estimated service life of more than two years. Capital expenditures for the current year are not included in either the direct or full costs of the other activity centers, but are recorded here for purposes of reconciliation. Examples include building additions, building construction, capital equipment, land, and land improvements. (32)**

TRANSFERS-OUT: This category includes all transfers from the library fund to another fund at the discretion of the institution's governing board. Although such transfers usually involve unrestricted funds of the Current Fund, a redesignation of funds previously designated for a different purpose may be made and the subsequent transfer recorded in this category. (32)**

UNEXPENDED BALANCE: That portion of the library's current funds which is not spent and not pledged toward a specific purpose, such as a sinking fund. Unexpended funds may revert to the appropriating unit or become part of the expendable funds for the succeeding fiscal period. (7)

DOLLAR EQUIVALENCY OF CONTRIBUTED SERVICES: The dollar value of services performed gratis in place of compensated staff members performing tasks normally part of the library's programs and services. These people should be included in the staffing counts in the Personnel Section. (7)**

FORMAT 4
OPERATING EXPENDITURES

LOCATION _____
FISCAL PERIOD FROM____ TO____

Programmatic Activities (Function) / Object of Expenditures	Exempt Employees		Non-Exempt Empl.		Supplies & Services	Non-Capital Equipment	TOTAL
	Salaries and Wages	Fringe Benefits	Salaries and Wages	Fringe Benefits			
ADMINISTRATIVE SERVICES							
USER SERVICES: MATERIALS DISTRIBUTION							
USER SERVICES: MATERIALS IDENTIFICATION ACCESS							
USER SERVICES: INTERINSTITUTIONAL EXCHANGE AND LOAN SERVICES							
TECHNICAL SERVICES: COLLECTION DEVELOPMENT							
TECHNICAL SERVICES: MATERIALS ACQUISITION							
TECHNICAL SERVICES: MATERIALS ORGANIZATION							
TECHNICAL SERVICES: MATERIALS PREPARATION							
INSTRUCTIONAL SERVICES							
SUPPORT SERVICES							
TOTAL EXPENDITURES							

OBJECT OF EXPENDITURE

The amount reported should represent the funds expended for the current fiscal (academic) year, regardless of when the funds may have been received from Federal, State, or other sources. Report all expenditures as whole dollars only, omit cents.

Exempt Employees: An employee whose condition of employment and compensation are not subject to the provision of the Fair Labor Standards Act of 1938 as amended. Exempt employees are not eligible for overtime payment. According to Section 13 of the act, an exempt employee is "an employee employed in a bona fide executive, administrative or professional category. (33)**

Nonexempt Employees: An employee whose conditions of employment and compensation are subject to the provisions of the Fair Labor Standards Act of 1938 as amended. (33)**

Salaries and Wages: The term "salaries and wages" refers to the total salaries and wages (before any deductions) budgeted or paid to all individuals within a particular employee category. Salary dollars should represent gross salaries but should exclude all fringe benefits paid by the employing institution. (11, 13, 14, 32)**

Fringe Benefits: Includes all benefits paid and accruing to an employee, regardless of whether the benefits or equivalent cash options are available to all. Fringe benefits include the institution's contribution to Social Security, retirement, medical insurance, life insurance, guaranteed disability, income protection, unemployment compensation, workmen's compensation, cash tuition for faculty children, cash housing benefits, and other benefits in-kind with cash options. (32)**

Supplies and Services Expenditures: Materials and services that are consumed or expended within a limited time period--normally one operating cycle. Supplies and services will typically include the following types of expenditures: Supplies (consumable instructional, research and office supplies); communications (telephone, telegraph, postal); printing (binding and reproduction services); contractual services (including consulting services), rental, leasing of equipment; services of temporary employees, purchase of minor equipment; property taxes (or payments in lieu of) and utilities (gas, coal, oil, water, sewage, and electricity). Do not include expenditures on library materials (i.e., print and nonprint holdings.) (7)**

Equipment Expenditures: Expenditures for equipment items that benefit the institution, program, course of study or activity for more than one operating period. This category will typically include expenditures for scientific equipment, laboratory apparatus, office machines, and equipment, furniture and furnishings including free-standing bookstacks, and other items of a similar nature. Excluded are any equipment items purchased from capital funds. (32)**

DOLLAR EQUIVALENCY OF DONATED MATERIALS: This should include the estimated dollar value of gifts of materials to the library received during the current academic year. The donor may request an appraisal of the estimated value for tax purposes. Small gifts (e.g., one old, not rare book) should be excluded, unless these comprise a substantial proportion of current acquisitions.**

LOCATION _____
FISCAL PERIOD FROM _____
TO _____

FORMAT 5

LIBRARY (COLLECTION) MATERIALS

EXPENDITURES (LAD/LOMS)

1. Materials Expenditure Category

- Books, serials not purchased by subscription, other print $_____
- Serial and periodical subscriptions $_____
- Microforms $_____
- Nonprint materials $_____
- Other materials $_____

TOTAL MATERIALS EXPENDITURE $_____

2. Collection Maintenance

o Binding and rebinding $_____

3. Conversion of Collection to Microform $_____

4. Automation Services $_____

LIBRARY (COLLECTION) MATERIALS (LAD/LOMS)--DEFINITIONS

BOOKS: Expenditures for the purchase of books, serials not purchased by subscription, and other print materials. Excluded are periodical or serial subscriptions and materials in microform.**

SERIAL AND PERIODICAL SUBSCRIPTIONS: Expenditures for subscriptions to serials and periodicals. Excluded are expenditures for those serials purchased without subscription and back issues of periodicals. **

MICROFORMS: Expenditures for materials purchased in microform. Excluded is the cost of conversion of current collection holdings to microform. **

NONPRINT MATERIALS: Expenditures for nonprint library materials, cassettes, videotapes, motionpictures, slides, etc. Included are only prepared materials, not blanks or unexposed film for use in preparation of materials by library staff.** Expenditures for equipment for the use of nonprint materials is reported in Table III-C.

BINDING AND REBINDING: The process of producing a single volume from (leave, shots, signature), or issue of periodicals, or of covering such a volume, either initially, as in the case of "binding," or on a thorough restoration of a volume, involving resewing and a new cover, as in the case of "rebinding." For statistical purposes, repairing and mending are not included with these activities. (7) Included are expenditures paid to commercial binderies only.

CONVERSION: Expenditures paid to a commercial firm for conversion of current collection holdings to microform.**

AUTOMATION SERVICES: Expenditures paid to a commercial firm for automated services.**

FORMAT 6

PERSONNEL SERVICE MONTHS BY FUNCTIONS Date of Census_____

Programmatic Activities (Function) / Manpower Categories	Exempt					Nonexempt					Total Service Months	Contributed Services Total Service Months
	Full-time Employees		Part-time Employees			Full-time Employees		Part-time Employees				
	Headcount	Equivalent Service Months	Headcount	Equivalent Service Months	Total Service Months	Headcount	Equivalent Service Months	Headcount	Equivalent Service Months	Total Service Months		
Administrative Services												
User Services												
Technical/ Production Services												
Instructional Services												
Support Services												
Total Services Months												

FOOTNOTES

PERSONNEL SERVICE MONTHS BY FUNCTIONS - DEFINITIONS

EMPLOYEE: Any individual being compensated by the institution for services rendered. Included are individuals who donate their services, if the services performed are a normal part of the institution's programs or supporting services and would otherwise be performed by compensated personnel. Specifically excluded are employees of firms providing services to the institution on a contract basis.(33)

Full-time Employees: Those individuals available for full-time assignment or those designated as full-time in an official contract, appointment, or agreement. Normally, those individuals who work approximately 35-40 hours per week for the period being analyzed are considered full-time employees. Individuals on sabbatical leave should be included as full-time if that was the status of their employment prior to sabbatical.(33)**

Part-time Employees: Individuals who are available for less than full-time assignment or who are designated as part-time in official contract, appointment, or agreement. Employees who work less than approximately 35 hours per week are typically considered part-time.(33)**

Service months: The equivalent of one individual working full-time for the period of one month. Service months are calculated by multiplying the percent workload (relative full-timeness) by the number of months of the individual's appointment. As examples, an individual employed half-time for six months would be equivalent of (.5 x 6) = 3 service months of manpower resources. An individual employed full-time for nine months would be the equivalent of (1.0 x 9) = 9 service months of resource, and so forth.(33)

FORMAT 7

LOCATION _____
Date of Census _____

SERVICE MONTHS BY PERSONNEL CATEGORY AND FUNCTION

Personnel Categories / Programmatic Activities (Function)	Exempt Employees			Nonexempt Employees			Total Service Months (of paid services)	Service Months of Student Assistance (academic only)
	Administrative Executive	Instructional/Research	Specialist/ Librarian	Technical Support	Office/ Clerical	Service		
Administrative Services								
User Services								
Technical/ Collection Services								
Instructional Services								
Support Services								
Total Services Months								

Number of student assistants _____

SERVICE MONTHS BY PERSONNEL CATEGORY AND FUNCTION - DEFINITIONS

MANPOWER CATEGORIES:

Executive/Administrative/Managerial: This classification includes employees who exercise primary responsibility for the management of the institution, or of a customarily recognized department or subdivision thereof, and who devote no more than 20 percent of their work week to Fair Labor Standards Act (FLSA) nonexempt work. Assignments may require the performance of work directly related to management policies or general business operations of the library or the performance of functions in the administration of a department or subdivision thereof. This category conventionally will include employees with such job titles as controller, dean, director, assistant dean, assistant director, coordinator. It may not include the head, chairman, or other administrative assignee within a department or similar unit unless such person is primarily an administrator exercising specific administrative authority while other activities are secondary. It is assumed that assignments in this category customarily and regularly require the incumbent to exercise discretion and independent judgment, and to direct the work of others. (33)**

Instruction/Research: Individuals employed for the primary purposes of performing instruction and research activities. Typically includes only excmpt employees (although in some, primarily proprietary, institutions they may be nonexempt). Instruction/research professional include the exempt research staff. Where instruction and research activities account for less than 50% of the individual's assignment, the individual is more appropriately classified elsewhere. (33)**

Specialist/Librarian: Employees given assignments requiring knowledge and creative work in an artistic field, and no more than 20 percent of the work week is devoted to FLSA nonexempt work. This category includes such employees as attorneys, librarians, accountants, systems analysts, and so forth, but excludes individuals who have executive or managerial (supervisory) responsibilities.

This category has a number of features in common with the previous two classifications of Executive/Administrative/Managerial and Instruction/Research. Persons in these three categories conventionally are drawn from the same or similar education, training, experience, and vocational backgrounds. Typically there is some inter-category mobility among these three categories, and all three (typically) are in the Fair Labor Standards Act exempt category.

Such employees are distinguished from Instruction/Research and Executive/Administrative/Management Employees in that their primary activity is practice in their particular field rather than either administration, instruction, or research. For example, a reference librarian would be a specialist/support employee, whereas the head of the library would be an administrator and an individual whose primary responsibility was teaching library science courses would be an Instructional/Research employee. (33)**

Technical: Individuals employed for the primary purpose of performing technical activities (that is, activities pertaining to the mechanical or industrial arts or the applied sciences).

This category includes only nonexempt employees. Such employees typically exercise specialized knowledge and skills of the type that normally are acquired in postsecondary educational programs that do not lead to a bachelor's degree but do lead to a recognition of completion of a planned and sequential program. Such technical staff may be computer operators, photographers, position classification specialists, library technicians, engineering technologists, and so forth. While these skills normally are acquired in formal postsecondary educational programs, incumbents may have acquired them through experience also. (33)**

Office/Clerical: Individuals employed for the primary purpose of performing clerical activities. This category includes only non-exempt employees.

Service: Individuals employed for the primary purpose of performing service (often unskilled) activities. Includes such employees as custodians, groundskeepers, security guards, food service workers, and so forth. Includes only nonexempt employees. (33)**

LOCATION _____
DATE OF INVENTORY _____

FORMAT 8
BIBLIOGRAPHIC HOLDINGS

	COLLECTION CATEGORY	TITLES	BIBLIOGRAPHIC VOLUMES
Print and Print Facsimile	Books & Bookstock In Print		
	On Microform		
	Periodicals In Print		
	On Microform		
	Newspapers In Print		
	On Microform		
	Other Print or Print Facsimile In Print		
	On Microform		
Nonprint/Educational Technology	Audiorecordings		
	Projected & Magnified Materials (other than microform)		
	Electronic Display Materials		
	Computer Materials		
	Pictorial Materials		
	Three Dimensional Materials		
	Kits		
	Other Non-Print		
	Converted Holdings Bookstock Converted to Microform		
	Periodicals Converted to Microform		

49

Number of Periodical Titles received on subscription _____ Unique periodical titles in any/all forms _____

50

BIBLIOGRAPHIC HOLDINGS - DEFINITIONS

Holdings count suggested in the following definitions do not reflect a definitive measurement of library collections. They are, instead, forwarded as a possible basis for comparison of holdings among libraries.

BIBLIOGRAPHIC VOLUMES: For reporting purposes, a volume is a physical unit of any printed, typewritten, handwritten, mimeographed, or processed work, contained in one binding or portfolio, hardbound or paperbound, which has been cataloged, classified and made ready for use. (7,11,13,14) A publisher's volume should be considered when counting periodicals, unbound, bound or on microfilm. For books and other materials on microfilm and microfiche publisher's volume should also be considered as a unit of count. For library materials, which are not logically classed according to volume counts, such as sculpture, games, or prints, the volume count is the same as the title count except when the library owns more than one copy of a title. In this case, the volume count should reflect the additional copies of the same title, (e.g., 3 copies of the Mona Lisa would be counted as one title, and 3 bibliographic volumes) regardless of the number of pieces or physical units in one title. For materials on reels, and discs, such as films, cassettes, etc., the volume count should reflect the additional copies of the same title, not necessarily the number of physical units (e.g., 2 copies of a 3-reel film are 2 bibliographic volumes).**

TITLES: For reporting purposes, a title is a publication which forms a separate bibliographic whole, whether issued in one or several volumes, reels, discs, slides, or parts. It applies equally to print and non-print materials as books, periodicals, audio-visual materials and microforms. Estimation procedures are specified in the HEGIS and LIBGIS reports. (11,13,14)*

LIBRARY MATERIALS

PRINT OR PRINT FACSIMILE MATERIALS: Materials which originate from the traditional form of text in ink or in similar substance on paper. Included in this category are books, periodicals, newspapers. Also included are printed materials which have been reproduced on microform. Microforms are any materials, film or paper, printed or photographic, containing microimages which are units of information, such as a page of text or drawing, too small to be read without magnification. Includes Computer Output Microfilm (3). Other mediums such as audiovisual materials, kits, maps and three-dimensional materials are excluded.** Subcategories include:

Bookstock: The library's collection(s) of books and other printed materials that are interfiled with, or that may be interfiled with, books. For example, a government document or a yearbook that may be cataloged as a book and shelved with books, is to be reported as bookstock. Collections of government documents, pamphlets, paperback books, technical reports, manuscripts, memoirs, proceedings, transactions of societies, monographic and publishers series, etc. that can be cataloged in the same manner as books should be reported as bookstock. (7)**

Books on Microform: A unit of publication, on microform, either bibliographically independent or a volume in a series published under the same title, consisting of leaves, sheets or signatures which would, if in print, be bound together. This category does not include periodicals and newspapers. **

Periodicals: A periodical is a publication constituting a continuous series under the same title published at regular or irregular intervals over an indefinite period, individual issues in the series being numbered consecutively or each issue being dated. Publications appearing annually or less frequently are included in this definition.(7,10)**

Periodicals on Microform: A serial publication which constitutes one issue in a continuous series under the same title placed on microform.**

Newspaper: A serial publication issued at stated and frequent intervals (usually daily or weekly), which reports events and discusses topics of current interest, and is usually a "primary source" of information to its readers. (7)*

NONPRINT MATERIALS: These materials consist of nonprint library holdings. Some require special equipment in order to be seen and/or heard (including motion pictures, audio recordings, filmstrips, slides and overhead transparencies). Others do not require the use of special equipment in order to be seen and/or heard (for example, flat pictures, study print sets, maps, charts, and games).** Audiovisual materials not formally held by the library and audiovisual equipment should not be included. Included under nonprint materials are:

Audiorecordings: Materials on which sounds (only) are stored and can be reproduced (played back) mechanically and/or electronically. Included are audiodiscs, audiocards, audiotapes, audiopages, and talking books (3). This category does not include audioslides (categorized as Projected and Magnified Materials).

Computer Materials: The materials intended for use with the computer, either as input or output, which have data recorded on them in some form. Does not include Computer Output Microfilm. Included are print-outs, computer tapes and discs. (3).

Electronic Display Materials: The materials on which signals are recorded for use through electronic display on a cathode ray tube, usually television. The recorded signal is for reproduction of pictures, usually accompanied by sound. Does not include recorded materials for computer output on a cathode ray tube. This category includes videotapes and videodiscs.(3)

Projected and Magnified Materials (excluding microform): Recorded visual materials which are intended to be enlarged, magnified, or projected for use. Some of the materials are often accompanied by sound. Included materials are filmstrips, slides, overhead transparencies, stereographs, holograms, and motion pictures(3).

Pictorial Materials: The two-dimensional materials with pictorial information which do not usually require the special equipment or magnification for use. Included are charts, maps, and pictures. (3)**

Three-Dimensional Materials: Those materials which are most easily classified in terms of their three-dimensional aspects. Included are dioramas, exhibits, games, globes, mock-ups, models, realia, simulation materials, and educational toys. (3)

Kits: A collection of materials in more than one medium that are subject related and intended for use as an instructional unit. Does not include Sound Filmstrips, Slide/Audiotapes, and similar items unless they are accompanied by other materials. Included are multimedia kits and learning packages. (3)**

CONVERTED HOLDINGS:

Periodical Conversion to Microform: The process of reproducing printed volumes of periodical holdings to microform. Conversion may be done in-house or contracted through an outside supplier. Counts should include the number of bibliographic volumes and the number of titles converted during the reporting year.**

Bookstock Conversion to Microform: The process of reproducing a book currently held in the print collection on microform. It should exclude the purchase in microform of bookstock not currently held by the library.**

PERIODICAL TITLES:

Periodical Subscriptions: An arrangement by which an organization, publisher, or an agent provides the library with copies of a periodical as issued. Only titles should be counted (exclude duplicate subscriptions). (7)**

Unique Periodical Titles in Any/All Form: The number of periodical titles whether current subscriptions, bound volumes, or microform. Counts include those periodical titles held, but to which the library does not currently subscribe. Those periodical titles that are held in more than one form should be counted once.**

FORMAT 9

LOCATION _____

DATE OF INVENTORY _____

HOLDINGS BY FORMAT (Physical Units)

	MATERIAL TYPE	PHYSICAL UNITS
Print Materials	Books	
	Uncataloged Paperbacks	
	Manuscripts	
	Bound Periodicals	
	Unbound Periodicals	
	Sheet Music	
	Vertical File Materials	
	Other Print Materials	
Microforms	Microfiche, Microfilm Cards	
	Microfilm (reels)	
	Ultrafiche	
	Other Microforms	
Audio Recordings	Audiocards	
	Audiodiscs	
	Audiotapes	
	Audiopages	
	Other Audiorecordings	
Computer Matls.	Computer Printouts	
	Magnetic Storage	
	Other Computer Materials	
Electronic Display	Videotapes	
	Videodiscs	
	Other Electronic Display Materials	
Projected and Magnified Materials	Filmstrip (reels)	
	Motion Picture Films (reels)	
	Slides	
	Other Projected and Magnified Materials	
	Pictorial Representations	
	Three-dimensional Materials	
	Kits	
	Braille Materials	
	Other Library Holdings	

FORMAT HOLDINGS - DEFINITIONS

PHYSICAL UNIT: A single unit holding of the library distinguished from other single units by a separate binding, encasement, or other clear distinction. Each item of microfiche, microfilm, microcard, slide, overhead transparency and similarly distinct holding should be counted as "one". **

PRINT: Materials available for use by the library patron in the traditional form of text in pen and ink or in similar substance on paper. Included in this category are books, periodicals, pamphlets, manuscripts and clippings.** Included in this category are:

Books: A unit of publication, either bibliographically independent or a volume in a series published under the same title, consisting of leaves, sheets, or signatures sewn or otherwise bound together, covered or uncovered. Bound volumes of periodicals and newspapers are not considered books. (7)

Periodicals: Issues of a periodical usually constituting the the whole or a consecutive part of a definite publishing period, affixed together with an adhesive with or without stitching, and usually encased in a protective cover with identifying marking added to the spine, and sometimes also to the front of the cover. (1)

Unbound Periodicals and Newspapers: Individual issues of a volume of a periodical or newspaper not attached by binding. (1)**

Sheet Music: A score of a musical work printed on separate sheets of paper typically folded to form consecutive pages.**

Vertical File Materials: Those items such as pamphlets and clippings, which, because of their shape and often ephemeral nature, are filed vertically in drawers for ready reference. (7)**

Other Print Materials: Any other physical units of any typewritten, handwritten, mimeographed or printed work contained in one binding or portfolio, handbound or paperbound which is available for use by the library clientele. (7, 11, 13, 14)**

MICROFORMS: Any materials, film or paper, printed or photographic, containing microimages which are units of information, such as a page of text or drawing, too small to be read without magnification. (3)

Microfiche, microfilm cards: A sheet of microfilm containing multiple microimages in a grid pattern or inserted in an aperture card. It usually contains a title which can be read without magnification. This category does not include ultramicrofiche. (21)**

Microfilm: A fine-grain, high resolution film containing an image greatly reduced in size from the original. (3)*

Micro-opaque: A sheet of opaque material bearing one or more microimages. Micro-opaque requires a different reader (using reflected light) than microfilm. Includes microprint and micropaper. (3)

Ultrafiche: Any microfiche with images reduced more than 90 times of the original size. (Also called Ultramicrofiche.).(3)

Other Microform Materials: Any microform materials not listed and defined above. (3)

AUDIORECORDINGS: Materials on which sounds (only) are stored and can be reproduced (played back) mechanically and/or electronically. (3) Included are:

Audiocard: A thin card with a strip of 1/4 inch audiotape across the bottom of its width (usually 12 inches or less). The sounds recorded on tape are usually 10 seconds or less in length. Space is provided above the audiotape for pictures or words. (3)

Audiodisc: A disc, usually of vinyl, in which is impressed a continuous fine spiral groove. As the audiodisc revolves, it causes a stylus to vibrate and produce electrical signals which are converted to sound. (Also called Phonograph Record, Phonodisc, Sound Recording, Phonorecord and variants of these terms.) (3)

Audiotape: A strip of magnetic tape on one side of which electrical signals are recorded which can be converted to reproduce sound. While audiotape ranges in size from 150 mils to 1 inch, the most common size in instructional applications is 150 mils (in cassettes) and 1/4 inch (reels). This category includes audiotape reels, cassettes and cartridges. (3)

Audiopage, Recorded: A specially prepared page or sheet backed with a magnetic oxide (similar to that on audiotape) containing an audiorecording. An audiopage requires special playback equipment and is not the same as an Audiocard. (3)

Other Audiorecordings: Any audiorecordings not listed and defined above, including dictation/transcription belts which make up the library's collection. (3)

COMPUTER MATERIALS

Computer Printout: The printed output of a computer usually on a continuous sheet of paper. Specifically designed forms for printing information with a computer printer are also recorded here. (3)

Magnetic Storage: Data stored on magnetic tape, disc, cassette or other magnetic data storage medium. **

Other Computer Materials: Any recorded computer materials not listed and defined above, including card decks.**

ELECTRONIC DISPLAY MATERIALS

Videotape: A magnetic tape on which video and audio signals are recorded for television use. The tape varies from 1/2 to 2 inches in width and from 0.5 to 1.5 mils in thickness. The most common sizes for instructional use are 1/2, 3/4, and 1 inch wide. Videotape may be on an open reel or in a cartridge or cassette. (3)

Videodisc: A disc on which are recorded video and/or audio signals for television use. A videodisc requires a videoplayer compatible with the videodisc. (3)

Other Recorded Electronic Display Materials: Any recorded materials for electronic display not listed and defined above. (3)

PROJECTED AND MAGNIFIED MATERIALS:

Filmstrip: A length of film that presents a sequence of related still pictures for projection one at a time. Most filmstrips are on 35 mm film but some are 16 mm or smaller. A filmstrip is single-frame if the horizontal axis of the pictures is perpendicular to the sprocket holes; it is double-frame if the horizontal axis of the pictures is parallel to the sprocket holes. It may or may not have provision for sound accompaniment. Includes sound filmstrips (also called strip-film). (3)

Motion Picture Film: A flexible, usually transparent material with or without a magnetic or optical sound track, bearing a sequence of images which create the illusion of movement when projected in rapid succession (usually 18 or 24 frames per second). Common film sizes in use are 16 mm, 8 mm, and single/super 8 mm. (3)*

Slide: A transparent image on film or glass (usually photographic) intended for use with a slide projector or microscope. May be accompanied by audiotape or cassette. (3)**

Other Projected and Magnified Materials: Any other projected and magnified materials not listed and defined above. This may include holograms, overhead transparencies, and stereographs.**

PICTORIAL REPRESENTATIONS: The two-dimensional materials with pictorial information which do not require special equipment or magnification for use. (3)**

THREE-DIMENSIONAL MATERIALS: Those materials which are easily classified in terms of their three-dimensional aspects.**

KIT: A collection of materials in more than one medium that are subject related and intended for use as an instructional unit. Exclude sound filmstrips, slide/audiotapes and similar items unless they are accompanied by other materials. (3)

BRAILLE MATERIALS: Library materials for the visually handicapped using a system of embossed prints. (7)

LOCATION _____
DATE OF INVENTORY _____

FORMAT 10

CATALOGS

Service Outlet / Type of Catalog	Central Library	Branches	Other Service Outlet	Total	Number of Book Catalogs
Official					
Public					
Depository					
Departmental					
Other					
Total Catalogs					

DEFINITIONS

Enter in this table the number of catalogs presently maintained by library personnel.

OFFICIAL CATALOG: A catalog for the use of library staff only. (20)

PUBLIC CATALOG: A catalog for public use as distinguished from one limited to official use. (20)** For definitions of Adult Services, refer to Table VI-B Definitions. For definitions of Young Adult and Children's Services, refer to Format V-A, Facilities.

DEPOSITORY CATALOG: A catalog containing the complete set of cards printed by the Library of Congress, placed without charge in certain libraries. (20)**

DEPARTMENTAL CATALOG: A catalog of the books in a library department or in a departmental library in a college or university library system. (20)**

LOCATION _____
FISCAL PERIOD FROM _____
TO _____

FORMAT 11

USER SERVICE ACTIVITY LEVELS

1. Hours of service per typical week for:

   - Central Library _____
   - Branch Libraries _____
   - Other Service Outlets _____

2. Hours of service in which a member of the specialist/librarian personnel category is available to the library's clientele:

   - Central Library _____
   - Branch Libraries _____

3. Number of users entering the library per typical week: _____

   - To circulate materials
     - -from the general collection _____
     - -from the reserve collection _____
   - To consult materials in the library collection _____
   - To utilize a specific library service
     - -Reference Services _____
     - -Interlibrary Loan Services _____
     - -Media Services _____
     - -Other _____
   - To study _____
   - For other activity _____

4. Materials Distribution activity per typical week:

   - Dial access transactions _____
   - Titles in reserve collection _____
   - Volumes reshelved from in-library use _____

5. Materials Identification/Access hours of service per typical week:

   - Central Library
   - Branch Libraries
   - Other Service Outlets

7. Number of manual searches conducted during typical week by materials identification/access staff for library clientele:

- of the public catalog or other listing of the library collection _____
- of ready reference source(s) _____
- of another single source from the reference collection _____
- of more than one source in the reference collection _____

8. Bibliographic machine readable data base searches conducted during typical week:

- Number of searches conducted _____
- Number of citations produced _____
- Number of data bases searched _____
- Turnaround (total) on searches _____

9. Bibliographies and special catalogs produced by the library:

- Number of bibliographies and special catalogs produced _____
- Number of copies provided to the public _____
- Service months devoted to compilation _____

10. Number of directional transactions per typical week:

° Central Library _____
° Branch Libraries _____
• Other Service Outlet_____

11. Interinstitutional Exchange and Lending:

•Number of unique borrowers _____
•Number of unique lenders _____

USER SERVICE ACTIVITY LEVELS-DEFINITIONS

A typical week is a week in which the central library and other service outlets are open during regular hours for general users and which does not contain any holiday. (14)**

USER SERVICE ACTIVITY:

Hours of Service Per Typical Week: Those hours during the week when a library branch or bookmobile is open and prepared to render service to its clientele. Total service hours are determined by adding the number of hours the library is open to users, or a bookmobile is in place to provide service to users, for each day of the typical week. (14)**

Hours of Service in Which a Member of the Specialist (Librarian Personnel) Category is Available to the Library's Clientele: Those hours during the week when a library or branch library is open, and at least one member of the specialist/librarian personnel category is prepared to render service to the library's clientele.**

Specialist/Librarian Personnel Category: For definition of the specialist/librarian personnel category see Definitions, Section IV, Personnel Characteristics.

Clientele Entering Library: Individuals (not library employees) entering the library for any purpose.**

Circulation: The activity of a library in lending its resources to borrowers, for use outside the library building. (7)**

General Collection: That part of a library's holdings containing basic materials for general use as distinct from special or reserve collections. (7)**

Reserve Collection: Materials which have been removed from the general circulating collection and set aside in a library or media center so that they will be on hand for a certain course of study in progress. Usually the circulation and length of loan of items in a reserve collection are res-ricted so that they will be available to those who have need of them within a limited time period. (7)*

Consult Materials: The in-house use of library materials.**

REFERENCE TRANSACTION: A reference transaction is an information contact which involves the use, recommendation, interpretation, or instruction in the use of one or more information sources, or knowledge of such sources, by a member of the reference/information staff. Information sources include: (1) print and nonprint materials; (2) machine-readable data bases (including computer-assisted instruction); (3) library bibliographic records, excluding circulation records; (4) other libraries and institutions; and (5) persons both inside and outside the library.

A question answered through utilization of information gained from previous consultaiton of such sources is considered a reference transaction even if the source is not consulted again. A contact which included both reference and directional service is one reference transaction. Duration should not be an element in determining whether a transaction is reference or directional. (36)

INTERLIBRARY LOAN SERVICES: A library's activity in seeking to fill the needs of its clientele through the use of materials borrowed from another library. (7)**

MEDIA SERVICES: A library's activity in seeking to fill the needs of its clientele for nonprint library materials as well as space and equipment for their use.**

MATERIALS DISTRIBUTION:

Dial Access: Dial access is the distribution of instruction and educational information by cable and/or microwave link within a library or between two or more institutions or libraries. The transmission may take the form of radio, television, or computer data and there may be a computer or computer terminal at any point on the network or communication system. Input and output devices may take the form of teletypewriters or other input and output devices.**

Reserve Collection: These are library materials which have been removed from the general circulating collection and set aside in an academic library or media center so that they will be on hand for a certain course of study in progress. Usually the circulation and length of loan of items in a reserve collection are restricted so that they will be available to those who have need of them within a limited time period. (7)***

Non-Circulated Volumes Reshelved: Library volumes removed from the library shelf by a library user not for the purposes of circulation. Normally these volumes are left on tables or in other library areas, at which time library pages may return them to the appropriate location on the shelves. Circulated materials which have been returned for discharge and reshelving should not be included in this category.**

MATERIALS IDENTIFICATION/ACCESS

Hours of Service: The total number of hours in the typical week that the above service points are staffed by qualified personnel.**

Manual Search (also literature search): A type of reference activity which involves extensive use of a library's resources to locate specific information on a given subject. In a manual search, the person physically uses the reference sources. (7)**

Bibliographic Machine-Readable Data Base Search: The search of a machine-readable data base for specific information on a given subject, usually using a computer terminal.**For definition of bibliographic data base, refer to Section VI, Assets.

Bibliography: A list of references to library materials organized for a particular use or relating to a particular subject. (7)

DIRECTIONAL TRANSACTION: A directional transaction is an information contact which facilitates the use of the library in which the contact occurs, and its environs, and which may involve the use of sources describing that library, such as schedules, floor plans, handbooks, and policy statements. Examples of directional transactions are: (1) directions for locating facilities such as restrooms, carrels, and telephones; (2) directions for locating library staff and users; (3) directions for locating materials for which the user has a call number; (4) supplying materials such as paper and pencils, and (5) assisting users with the operation of machines.

A contact which includes both reference and directional service should be counted as one reference transaction, and excluded from this category. (36)**

INTERINSTITUTIONAL EXCHANGE AND LOAN SERVICES:

Unique Borrowers: The number of institutions requesting materials of the library. **

Unique Lenders: The number of institutions from which the library received materials through interlibrary loan.**

LOCATION_____
PERIOD REPORTED FROM____
TO____

FORMAT 12

MATERIALS IDENTIFICATION/ACCESS
TRANSACTIONS

Type of Transaction / Source of Transaction & Outcomes	Received				Total Transactions Received	Number Answered to the Satisfaction of the Patron
	In Person	Phone	Mail	Other		
Reference Transaction						
Directional Transaction						
Total Materials Identification/Access Transactions						

Instructions. Report contacts of all main and branch library personnel whose assigned duties include provision of reference/information service. A staff member should report each contact separately, whether or not the user has already consulted either that staff member or another on the same information need.

LOCATION _____
FISCAL PERIOD FROM _____
TO _____

FORMAT 13

INTERLIBRARY LOAN ACTIVITY

Type of Materials \ Type of Activity	Borrowing Activity			Lending Activity			Bulk Loans	
	Requests Made	Filled		Requests Made	Filled			
		Original	Reproduced		Original	Reproduced	Borrowed	Lent
BOOKSTOCK								
PERIODICALS								
OTHER PRINT								
AUDIORECORDINGS								
COMPUTER MATERIALS								
ELECTRONIC DISPLAY EQUIPMENT								
PROJECTED & MAGNIFIED MATERIALS								
THREE-DIMENSIONAL MATERIALS								
KITS								
OTHER NONPRINT								
TOTAL								

INTERLIBRARY LOAN ACTIVITY--DEFINITIONS

INTERLIBRARY LOANS: These are materials sent in answer to specific title, author, or subject requests made between libraries or library agencies that are not under the same administration (i.e., inter-branch and intracampus lending and borrowing are excluded).(11)**

Borrowing Request: A request sent to another library for materials requested by a patron of the reporting library. A request should be counted only once regardless of the number of libraries queried for the item requested. **

Lending Request: A request sent from another library for materials believed to be owned by the reporting library. **

Filled Request: The material requested is loaned to the requestor, or a photocopy of material requested is supplied requestor.**

Original Format: Those items that are loaned from the library's collection, or borrowed from another library's collection in the same format in which it resides in the collection (e.g., a book, a film, a record) and are returned to the originating library. **

Reproduced Format: A facsimile reproduction of an item (e.g., a photocopy) provided in order to fill a loan request. Typically, reproduction costs are paid for by the requesting library and the material is not returned to the originating library. Included in this category are photocopies of articles from journals, a cassette copy of a record, microform reproduction, and so forth.**

BULK LOANS-LENT: Collections of materials lent by the reporting library to other libraries or other agencies usually for an extended loan period. These collections remain under the administration of the reporting library and are included in holdings counts of the library.**

BULK LOANS-BORROWED: Materials received in rotating collections and other bulk loans from libraries, library agencies, and other sources that are not under the reporting library's administration. (11)

LOCATION _____
FISCAL PERIOD FROM _____
TO _____

FORMAT 14

TECHNICAL/PRODUCTION SERVICE ACTIVITY LEVELS

1. Collection Development:

   Number of new titles selected:

   - Books _____
   - Periodicals _____
   - Other _____

   Number of titles requested by faculty/user which are already on order or in collection _____

2. Acquisition Activity:

   Purchase Orders:

   - Initiated _____
   - Placed _____
   - Cancelled _____
   - Traced _____

   Blanket Purchase Orders:

   - Items retained _____
   - Items returned _____

   Purchased items received: _____

   - Gifts received _____
   - Gifts retained _____

3. Materials Organization Classification employed: (check two items)

   - LC (Library of Congress classification) ☐
   - Dewey classification ☐
   - Other (specify) _____ ☐
   - Without revision ☐
   - With some revision ☐
   - With much revision ☐

4. Classification revisions (check as many as apply)

- Classification adjustments are made for different branches. ☐
- Reclassification from one system to another is presently in progress. ☐
- Revision of classification for older holdings is performed on a regular and ongoing basis. ☐

5. Subject headings list employed (check two items)

- Sears ☐
- LC ☐
- Other (specify) ☐
  _____
- Without variation ☐
- With little variation ☐
- With much variation ☐

6. Percent of library materials

- Obtained precataloged (through either centralized processing or vendor) _____
- Cataloged with LC (Library of Congress) card or copy in hand _____
- Cataloged using National Union Catalog (NUC) copy _____
- Cataloged using Cataloging-in-Publication (CIP) record _____
- Cataloged using automated network records (e.g., OCLC, BALLOTS) _____
- Cataloged using anotner secondary source _____
- Cataloged from the publication only (i.e., original cataloging) _____

FICE/LIBGIS CODE _____
FISCAL PERIOD FROM _____
TO _____

FORMAT 15

TABLE VII-G

COLLECTION DEVELOPMENT ACTIVITY (ADDITIONS AND WITHDRAWALS)

	Type of Material / Collection Activity	Bibliographic Volumes Added During Year	Bibliographic Volumes Removed During Year	Titles Added During Year	Titles Removed During Year
Print & Microform	Books and Bookstock In Print				
	On Microform				
	Periodicals In Print				
	On Microform				
	Newspapers In Print				
	On Microform				
	Other Print or Print Facsimile In Print				
	On Microform				
Non-print Materials	Audio Recordings				
	Computer Matl's				
	Electronic Display Materials				
	Projected & Magnified Matl's				
	Pictorial Matl's				
	Three-dimensional Materials				
	Kits				
	Other Nonprint				

TECHNICAL/COLLECTION SERVICES ACTIVITY LEVELS--DEFINITIONS

COLLECTION DEVELOPMENT

New Title: A title which is not already a part of the library collection. For a complete definition of title, see definitions for Holdings (Table VI-C).**

Faculty/User: A patron of the library or a member of the instructional/research staff. **

Purchase Order: A written order placed with a vendor for a certain item which he has to sell. Information included on a purchase order usually includes title, author, publisher, a vendor's control number and cost. **

Initiated: Purchase orders begun. **

Placed: Purchase orders completed and sent to vendor. **

Cancelled: Purchase orders stopped before delivery of item ordered. **

Traced: Purchase orders for which the vendor must be contacted because the item ordered has not been delivered in a reasonable length of time. **

Blanket Purchase Order: An order with a vendor for all titles on a certain subject or by a certain author. Also called "Approval Plan." **

Retained: Those items obtained through a blanket purchase order (or gift) which are reviewed and kept. **

Returned: Those items obtained through a blanket purchase order (or gift) which are reviewed and returned to the vendor (or discarded). **

Purchased Items Received: Items received by the library for which the library must pay a vendor. **

Gift and Exchange: The acquisition of library materials by gift, or in exchange with another institution for publications of that institution. (7)*

Classification: A systematic scheme for the arrangement of books and other materials according to subject or form. Also, the assigning of books to their proper places in a system of classification. (20)

Library of Congress Classification: A system of classification for books developed by the Library of Congress for its collections. It has a notation of letters and figures that allows for expansion. (20)

Dewey Classification: The classification scheme for books devised by Melvil Dewey, which divides human knowledge into ten main classes, with further decimal division, using a notation of numbers. (20)**

Revision: The process of selectively altering a defined classification scheme to meet the requirements of the library.**

Subject Heading: A word or a group of words indicating a subject under which all material dealing with the same theme is entered in a catalog or a bibliography, or is arranged in a file. (20)

Cataloging: Activities related to the identification and bibliographic description of library materials.

Precataloged Material: An item which is accompanied by catalog cards obtained through purchase, contract or agreement from a commercial concern or library. (7)

LC Card or Copy: Catalog cards, proof slips or register of cataloging records provided through the Library of Congress. This does not include LC cataloging provided through commercial card services who use other than LC catalog records.**

National Union Catalog: A register of locations for materials owned by libraries throughout the country. Included in NUC are copies of complete catalog records.**

Cataloging-in-Print (CIP): Bibliographic record of titles found on the title page verso.**

Automated Network: A system for determining bibliographic descriptions for local holdings by utilizing the information of an automated network, usually through a computer terminal.(15)**

Secondary Source: Card services which provide both LC and other catalog records, other than above.**

Original Cataloging: A determination of the descriptive material to be contained in the bibliographic record, from the physical item. (15)

LOCATION _____
FISCAL PERIOD FROM _____
TO _____

FORMAT 16

COLLECTION DEVELOPMENT ACTIVITY (ADDITIONS AND WITHDRAWLS)

	Collection Activity / Type of Material	Bibliographic Volumes Added During Year	Bibliographic Volumes Removed During Year	Titles Added During Year	Titles Removed During Year
Print & Microform	Books and Bookstock In Print				
	On Microform				
	Periodicals In Print				
	On Microform				
	Newspapers In Print				
	On Microform				
	Other Print or Print Facsimile In Print				
	On Microform				
Non-Print Materials	Audio Recordings				
	Computer Matl's				
	Electronic Display Materials				
	Projected & Magnified Matl's				
	Pictorial Matl's				
	Three-dimensional Materials				
	Kits				
	Other Nonprint				

COLLECTION DEVELOPMENT ACTIVITY--DEFINITIONS

Bibliographic Volumes Added to the Collection: The number of volumes acquired by the library or completed during the reporting year (i.e., a periodical volume is completed when all issues in the volume are held in the collection).

Bibliographic Volumes Removed from the Collection: The number of volumes removed (e.g., sold, exchanged, discarded) from the collection.

Titles Added to the Collection: Titles new to the collection acquired during the reporting year.

Titles Removed from the Collection: The number of titles removed from the collection. Only the last copy of a title sold, exchanged, discarded, lost, etc. would be included.

Discard: To withdraw a book, periodical volume, or other item from the collection and from any records. See also weeding. (7)

Weeding: The selection of library material from the collection to be discarded or transferred to storage. (7)

LOCATION _____
FISCAL PERIOD FROM _____
TO _____

FORMAT 17
CATALOGING ACTIVITY

Material Type \ Cataloging Type	Original Cataloging	Derived Cataloging	Brief Cataloging	Total New Cataloging	Recataloging and/or Reclassifications
Monographs					
Serials					
Nonbook Microfilm					
Other Microforms					
Films, filmstrips, slides					
Recordings					
Sheet Music					
Maps					
Other					
Analytics					

New subjects and subdivisions established _____
Name authority cards established _____

CATALOGING ACTIVITY-DEFINITIONS

Material Types:

Monograph: A treatise on a particular subject, usually detailed in treatment but not extensive in scope. It is generally a book or pamphlet, but need not be bibliographically independent. (7)

Serial: A publication issued in successive parts, usually at regular intervals, and as a rule, intended to be continued indefinitely. Serials include periodicals, newspapers, annuals (reports, yearbooks, etc.), memoirs, proceedings, and transactions of societies; they may include monographic and publishers' series. (7)

Cataloging Type:

Original Cataloging: Determination of the descriptive material to be contained in the bibliographic record, from the physical item. (15)

Derived Cataloging: The classification and description of an item using a source other than the physical item for bibliographic information (e.g., LC cards, commercial cards, automated system, etc.). This bibliographic information may be altered to fit the needs and uses of the library.**

Brief Cataloging: The classification and description of an item in an abbreviated form so that the item can be used or circulated immediately. Also called "Fast-Cat," or rush cataloging.**

Recataloging or reclassification: The altering of the classification and/or description of a segment of the catalog in order to better meet the needs of the library.**

LOCATION _____
FISCAL PERIOD FROM _____
TO _____

FORMAT 18

CATALOG MAINTENANCE ACTIVITY

Activity \ Service Outlet	Public Catalog	Official Catalog	Shelflist	Branch Catalogs	Other Catalogs	Total
Catalog Cards Added						
Catalog Cards Withdrawn						
Discards Recorded						
Additions & Changes Recorded on Catalog Cards						
Replacement cards Required						

-79-

DEFINITIONS

Shelflist: A record of the items in a collection arranged in the order in which they are arranged on the shelves.

Catalog card: One of the cards composing a card catalog

Catalog cards added: Cards added to the catalog during the reporting year.

Withdrawal: The process of removing from library records all entries for an item no longer in the library.

Discard: To withdraw a book, periodical volume, or other item from the collection and from any records.

Additions and changes recorded: The annotation of catalog cards to reflect changes in the collection (e.g., added copies of the same title, lost copies, conversion to microform, etc.)

Replacement cards: New copies of old cards needed because the card is no longer serviceable (e.g., old, worn, or incorrect)

APPENDIX B

EVALUATION INSTRUMENT

QUES. NO.	Directions & question meaning clear						Ability to Collect Information												Value of the Information									Comments		
	Yes			No			Already Collected			Easy to Collect			Hard to Collect			Impossible To Collect			Answer Useful And Worth The Cost			But not Worth the Cost			Answer Not Useful					
	M	S	L	M	S	L	M	S	L	M	S	L	M	S	L	M	S	L	M	S	L	M	S	L	M	S	L	M	S	L

APPENDIX C

SUMMARY REPORT

APPENDIX C

SHIPPENSBURG STATE COLLEGE
Ezra Lehman Memorial Library
24 August 1977

SUBJECT: Evaluation of the Library Statistical Data Base Project

TO: Maryann Kevin Brown, Senior Staff Associate, WICHE

FROM: Dr. Scott Bruntjen, Project Director, Council of Pennsylvania State College and University Library Directors

1. General

This memorandum describes the conduct of a field test of the Library Statistical Data Base and the highlights and the lessons learned as a result of this experience. While there are some changes that should be made, the general finding is that this data base project encourages the collection and interpretation of management information at the individual library level that should be a valuable aid for decision making especially in times of shrinking resources.

2. Description of the test

Five Pennsylvania State Colleges ranging from the smallest (2,400 students--no graduate programs) to the largest (12,000 students with programs through the PhD) were involved with the initial drafts and discussions about the document. Librarians at these schools submitted preliminary reviews through the project coordinator. In April, 1977 the pilot test document, which incorporated several of the key questions, was brought to a meeting of those persons who were to be involved with the test by Maryann Brown in an on site visit at Shippensburg. The time period 1 May -- 10 July, 1977 was selected as a test schedule. On 22-24 July, 1977 Dr. Bruntjen met with WICHE staff in Boulder to review the test results.

The test was to accomplish three major objectives:

a.) To attempt as much as possible to actually answer each question.

b.) To evaluate the cost of data collection, the utility of the answers (at the local level), and to evaluate the general language, directions and formats used.

c.) To determine if the document as developed can be used in the field without an inordinate amount of specialized training.

3. Summary of lessons learned

a.) With a few exceptions the definitions and directions, as provided, are complete and easily understood.

b.) The formats have some necessary data elements missing while, in some other cases, some are too detailed.

c.) The underlying structure of the document which, (by sorting out the relationships of library environment, assets, and performance) begins to permit a new conceptualization of libraries. This advance alone is probably worth the cost to date.

d.) The structure, with its attendant definitions and report formats, begins to permit the local library manager to assess his/her current position and to plan for the future. The project has the promise of providing management information in a manner that one would want it.

e.) The apparent compatability of this system (through its ability to aggregate) appears to support regional/national reporting as well as local needs.

4. It is apparent that this project represents a sound beginning but it is not a finished product. Work needs to be done in several areas including some definitions and formats, the development of performance measures, the establishment of base line data, an assessment of the correspondence of mid-sized academic libraries with other types and sizes of libraries, and the development of a training project.

5. This project represents a sizable step forward; it should not stop here.

APPENDIX D

EVALUATION DETAIL AND SUMMARY OF NCHEMS ACTION

APPENDIX D

EVALUATION DETAIL

The following is a summary of the findings of the evaluation of the pilot test submitted to NCHEMS by participating institutions. Each format and problems incurred with each format are separately addressed and outlined below.

A. Financial Measures

Formats 2 through 5 of the pilot test instrument (Appendix A) address fiscal data related to library operations. For the pilot test, fiscal data were reported by source of income, level of funding, mapping these monies to expenditures and tracing expenditures to programmatic activities. Further, detail on materials expenditures was required. Generally, the sophistication of existing data systems in the participating libraries dictated the level of difficulty experienced by the pilot participant in reporting financial data.

Format 2. Sources of Library Funds

General Comment: Unrestricted income -- that funding which may be allocated at the disgression of the institution or library manager -- was reported by funding source category (i.e., tuition and fees, appropriations, grants and contracts, generated income, etc.) The resulting information proved generally useful to pilot-test libraries.

Data Categories: The Pennsylvania State Legislature reallocates tuition and fees collected by state colleges and universities. Although the redistributed monies can be segregated from appropriations by the state, the tedious calculations necessary to determine this income separately detracted from the value of the information for the participants.

Definitions: Funding for CETA, work-study and other similarly funded positions was not specifically cited within definitions for income source. Reporting such income (i.e., in cases where employees are directly paid by state and federal sources, and not by the library) was therefore unclear. As a result definitions for state and federal funding sources were expanded to include these examples.

Format 3. Source/Expenditure Data

General Comment: Restricted funding (categorized according to source of income) and unrestricted funding were examined according to use: capital expenditures, materials operating expenses (for Administrative Services, User Services, Technical/Collection Services, Instructional Services, and Support Services), and transfers-out. The perceived utility of mapping income to programmatic function varied.

Data Categories: The detail required for contracts and grants, and for appropriations, i.e., refined to local, state, federal and private sources, proved of questionable value. One reporting library suggested that an optional level of aggregation would ameliorate this difficulty. However, in the final iteration of the Formats and Definitions this option was omitted. Since fund sources employed within the data base are largely compatible with accounting systems of institutions of higher education, the current level of detail for fund sources was deemed appropriate.

The dollar equivalency of donated services and donated materials -- appearing at the end of Format 3 -- is considered income to the library. The estimation of such dollar equivalencies proved more difficult than anticipated. The pilot test institutions recommended that a rule for such estimation and a policy for rounding off estimates (e.g., to the nearest $1,000) would facilitate reporting and provide sufficient information for management purposes. In meeting this recommendation, instructions for Format 3 were appended to indicate round-off options for donated services (to the nearest $1,000) and for donated materials (to the nearest $500).

Definitions: Expenditure categories included operating, capital, and materials expenses, as well as transfers-out. The extent of activity in the transfers-out account was unpredictable, and for this reason, definition for transfers-out was abbreviated. However, among participants of the pilot test, activity included unemployment self-insuring expenditures. As a result, at least one of the pilot test libraries reported paying unemployment for former employees from current library income. This expenditure is considered a mandatory (legally-binding) transfer-out. The definition for transfers-out was expanded to include this type of expenditure. Further transfers-out were refined to reflect mandatory transfers (such as debt service, self insurance, etc.) and nonmandatory transfers (transfers among accounts within the institution).

Format 4. Operating Expenditures

General Comment: Operating expenditures were refined to reflect exempt and nonexempt salaries and fringe benefits, noncapital expenditures and supplies for each program category at Level II (Figure 2). The resulting information proved useful to management and planning. However, the Level II aggregation posed problems in isolating certain of the data at this level of detail. An activity analysis of staff may be requisite in some institutions for accurate reporting at this level, and such activity analysis may not warrant the costs of data collection. The assignment of student assistants to a specific cost center was particularly difficult in instances where such support is considered as a pool without definitive assignment.

Data Categories: The distinction between salaries and fringe benefits for exempt and nonexempt personnel made in Format 4 may not be useful enough to the library manager to warrant such refinement. Overall, however, the categories employed in Format 4 were accurate and useful.

Definitions: No problems were noted.

Format 5. Library (Collection) Materials Expenditures

General Comment: The purpose of determining the amount of the budget devoted to the collection and its maintenance, is to assess the costs of resource maintenance and resource growth. Expenditures examined were those for material acquisitions (i.e., books and nonsubscription materials, periodical subscriptions, etc.), for binding and rebinding services, for conversion of holdings from one format to another (e.g., microfilming materials in the collection) and automated services. The level of detail required was more disaggregate than that reflected in current reporting systems. Generally, the format provided worthwhile information, and with the exception of level of refinement, data requested were similar to those presently collected.

Data Categories: The category which posed the major problem was that of subscriptions: by definition, this category excluded back issues of periodicals. Current data systems of the pilot institutions did not distinguish between separately ordered back issues and current subscriptions of periodicals. Separate accounting for standing orders was not available at one of the pilot institutions. Another problem inherent in current reporting structures is the inclusion of jobber and other service fees with materials expenditures; many institutions disallow such service expenditures thereby enforcing combined reporting of service fees with materials expenditures. Separate accounting for materials conversion from that of materials expenses also posed reporting problems; however, in recent iterations of this format, conversion expenses have been excluded as a separate expenditure category.

Definitions: Automation expenses were not clearly defined as materials specific. In later iterations of the data base, automation expenses were excluded as a separate line item.

B. Personnel Measures

Formats 6 & 7. Service Months by Personnel Category and Function

General Comment: Personnel characteristics evaluated in Formats 6 & 7 included information about the numbers of exempt and nonexempt personnel, and the related service months of these persons. Personnel measures were examined according to programmatic categories at Level 1 aggregation (See Figure 2). The pilot-test libraries found the resulting information generally useful, particularly in measuring personnel utilization. However, present data systems made some of these data difficult to collect. Further, the widespread use of student assistants made the category of part-time employees somewhat obscure.

Data Categories: For the most part, the distinction between exempt and nonexempt personnel did not pose a significant problem, nor did the distinction between full-time and part-time. However, the categorization of student assistants under either nonexempt or exempt part-time employee was believed to be misleading. These employees represent a far different resource (with a higher turnover rate, and largely different responsibilities and levels of accountability) than regular part-time employees. It was recommended by the pilot that this category be separated from regular employee categories. The lack of equivalence between one student working half time, and two students working quarter time, pointed to a different type of accounting for this resource. The difficulties of accounting for student assistants is not completely resolved. The distinction between students who are employed by the library and other persons employed by the library is a particularly tenuous one. In order to accommodate certain of the concerns raised during the pilot, the service months of student assistants and the numbers of student assistants employed at the library has been included in this format. However, no further distinction between student and other personnel has been included. No sound resolution has been found for varying levels of student employment (e.g., half time, quarter time, and exempt, nonexempt.)

Definitions: The definition of full-time employee proved faulty. Although this was not specifically noted by any of the participants, collected data indicated that the definition had been misinterpreted. Employees of the library who devote part of their time to the library and the remainder to another activity center within the institution are considered part-time library employees. Definitions in later iterations of the Formats and Definitions were revised to reflect this possibility.

C. Collection Measurement

A vital part of the library statistical data base is the description and evaluation of the collection. In earlier versions of the Formats and Definitions, collection was examined in terms of physical units and bibliographic holdings. At the time of the pilot test, only titles, bibliographic volumes, and physical units were examined. As a result of the review by the advisory group for this project and the review provided by the pilot, these formats have been revamped.

Format 8. Bibliographic Holdings

General Comment: Bibliographic holdings -- titles and bibliographic volumes -- were measured in categories of Print and Print Facsimile and Nonprint and Educational Technology (e.g., audiorecordings, electronic display materials, etc.). In addition, conversion of print titles and bibliographic volumes to microform, number of periodical subscriptions received, and unique periodical titles in any/all forms were measured. The refinement, or detail, was seriously questioned by pilot participants. The distinction between holdings on microform and print provided unnecessary. Further, bibliographic volumes of nonprint materials are impossible to collect as a separate data element, and, in any case, most often approximate physical units.

Data Categories: The detailed nature of Format 7 provided little additional information to the library manager. The use of titles and physical units is sufficient for most management purposes. As a result of the pilot, only title counts of print and print facsimile without distinction between print and microform was requested in the final version of this format. In this manner, data about unique periodical titles in any/all forms did not require a separate data element as it appears in the pilot Format 7. Similarly, conversion of the holdings (used in Format 7 as an accounting entry) was unnecessary in the final version of the library statistical data base.

Definitions: No problems were noted.

Format 9. Holdings by Format (Physical Units)

General Comment: In order to determine the physical dimensions of the collection resource, not only as a method of comparison with such statistics as circulation but also as a facilities planning tool, a detailed examination of the physical units by format of materials (i.e., books, bound periodicals, unbound periodicals, etc.) was necessary. Format 9 provides these types of data.

Data Categories: Typically, the library manager knows the number of physical units contained in the library collection. However, the detail at which such counts are available varies, and the detail required in Format 9 was generally too refined to yield accurate reports from pilot libraries. In addition, government documents not indicated as a separate category in Format 9 were difficult to assign to other categories.

Definitions: No problems were noted.

Format 9. Catalogs

General Comment: During the initial versions of the library statistical data base, the number of catalogs maintained by the library was included as it appears in Format 10. However, during successive iterations of the Formats and Definitions this particular format was excluded. Although this is considered generally useful information for the library manager and is considered by the piloted libraries to be easily collectible information, it was not considered crucial to the framework of the data base at this junction. At a later point in development, this particular format will probably be reincorporated.

D. Activity Measures

Activity measures are addressed in Formats 11 through 17. These indicate the output of a particular function.

Format 11. User Service Activity Levels

General Comment: Data included in Format 11 consisted of service hours, hours in which a librarian was available to the library's clientele, user data, dial access transactions, titles in the reserve collection, reshelving statistics, information service hours, manual information service searches, etc.

Data Categories: The original formatting of the user service activity levels did not provide for information from more than one branch or other service outlet. As a result, data reported by the pilot libraries reflected central library operations and the user activity observed at a single auxiliary outlet. In order to counteract this flaw in the format, the user activity measurement format was expanded to several formats allowing for data from several branches. Facility use was measured by a survey of users entering the library during the pilot test week. Categories of use included circulation, consultation of library materials, utilization of a specific service, study or other activity. This survey was generally believed too difficult to conduct, and the resulting information was not considered worth the cost of data collection. In the final iteration of the Formats and Definitions, this survey was included as an optional and exampled format.

Information Services hours of service per typical week were not sufficiently addressed within Format 11. Since these hours needed to be calculated on a service point basis, the refinement reflected in Format 11 was not sufficient to address multiservice points within one service outlet. As a result, this element was expanded to an entire format allowing for data entry on a service point basis.

Manual reference transaction searches -- refined to public catalog searches, ready reference collection search, multi-reference source search -- during a typical week proved too broad to encompass all reference transactions, and too unrefined to address many management concerns. Reference transactions have since been refined to reflect a variety of levels of aggregation and are measured in terms of time duration intervals and types of searches. Although present data systems did not provide information about bibliographies and special catalogs produced by library employees, the information was found generally useful by the pilot participants. One reporting library found that directional transactions were difficult to collect and perhaps not worthwhile. It should be noted, however, that present HEGIS/LIBGIS forms collect such information and, for this reason, this data element has remained in the most recent iteration of the Formats and Definitions.

Interinstitutional lenders and borrowers (#11) were not considered of particular value to the library manager and has been elminated from the library statistical data base.

Definitions: Hours of service did not specify inclusion or exclusion of study halls, hours in which the library facility is open to students but during which no library services are provided. This is a significant facility use for some academic institutions and, as a result, this data element was divided to reflect hours of service in which library services are provided and hours of facility service in which the library facility is open to the public, but it may or may not include library services.

Format 12. Materials Identification/Access Transactions

General Comment: Although Format 12 was evaluated to be useful, successive iterations of formats addressing reference transactions has eliminated this particular format.

Format 12. Interlibrary Loan Activity

General Comment: Interlibrary Loan activity was measured by the type of materials (e.g., bookstock, periodicals, audiorecordings, etc.) lent and borrowed, the number of requests made, and the number of requests filled by original and reproduced formats. It was considered important to collect data on interlibrary loan, but it is generally believed that the data collected in Format 13 were inappropriate.

Data Categories: The distinction between requests filled by original and reproduced format proved insignificant. Further, current data systems do not reflect this type of information. As a result, the ILL format was revised to consider format only for lending request. Filled requests for borrowing were only considered of value if materials were received within the time frame specified by the patron. For this reason, the filled request category was revised to reflect this.

Definitions: No "See" references were provided for materials type definitions. This was corrected in later versions of this Format.

Format 14. Technical Production Service Activity Levels

General Comment: Format 14 covers a variety of Technical/Collection Services Activity. For the most part, these data were not currently collected by participants, but with few exceptions the data were relatively easy to collect.

Data Categories: New titles selected for the library appeared to be a difficult category of information to report. In one instance, the resulting information was considered not worth the cost of data collection. As an outcome, this particular data element was eliminated since, in part, similar information is reported in Format 15. The number of titles requested by users which were already on order was collected by only one of the reporting libraries. For the most part these were difficult or impossible data to supply. As a result of the development of the performance module of the library statistical data base, this element was moved to reflect performance of collection development services. Acquisition activity (#2) examines purchase orders (initiated, placed, cnacelled and traced), blanket purchase orders (items retained, items returned), purchased items received, and

gifts (received and retained). One participant questioned the utility of this information particularly for smaller libraries. The remainder of the data collected in Format 14 was deemed useful and relatively easy to collect. Percentages employed in cataloging processes (#6) were estimates believed to be somewhat invalid.

Definitions: The only significant concern fostered in the definitions for the Technical/Production Service Activity Levels occurred in the definitions and counting algorithm for purchase orders. Purchase orders can reflect several or only one title. For this reason, it was unclear to participants what data were actually being requested. To avoid possible misinterpretations, the instructions for this format were amended to indicate per order,rather than per item, counts.

Format 15. Collection Development Activity (Additions and Withdrawals)

General Comment: Similar concerns and revisions were made to this format as those indicated in collection. Bibliographic volumes were eliminated from consideration as were nonprint materials. Thus, Format 15 was dramatically changed to monitor titles added and removed of books and bookstock, periodicals, newspapers, and other print/nonprint facsimile.

Format 16. Cataloging Activity

General Comment: Cataloging activity was examined by material type (monograph, serials, microfilm, etc.) and cataloging type (i.e., original cataloging, derived cataloging, brief cataloging, recataloging and reclassification). All participants found the information both useful and collectible.

Data Categories: The only data category that proved of questionable value were analytics, new subjects and subdivisions established, and name authority cards established. This was eliminated in later versions of the Formats and Definitions, and categories of materials were aggregated to Monographs, Serials, Other Print/ Print Facsimile and Nonprint materials.

Definitions: No problems were noted.

Format 17. Catalog Maintenance Activity

General Comment: These data proved to be difficult to collect on a per-catalog basis, and the difficulty in collecting such information was not considered worth the resulting information. As a result, the format was revised to reflect total catalog cards added (to all catalogs), total catalog cards withdrawn (to all catalogs) and so forth. The current format allows for use on an individual catalog basis if so desired.

APPENDIX E

MARK IV FILE MANAGEMENT SYSTEM

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The MARK IV file management system, developed and marketed by Informatics, Inc., is not a programming language per se, but a system for data file access, information retrieval, and report generation, aimed at the user who may not have a computer or programming background. In this user-oriented function, MARK IV provides easy access to existing files, logical file selection, and report formatting, including titling and summarizing capabilities. Further, MARK IV is designed such that the user can alter his file selection and reports with minimal redesign effort. In this sense, MARK IV can be learned by even the inexperienced user in a relatively short time period.

For the experienced programmer, this basic use of MARK IV frees him/her from the time consuming, error prone tasks of file management and report production. Through its basic extension, MARK IV gives the programmer the means to create, update and modify files, plus the arithmetic functions necessary for basic data analysis. The MARK IV files can range from simple, almost trivial data sets to complex hierarchical systems with or without coordinated files. The availability with MARK IV of both branching and subroutine functions in conjunction with its practical method of linking with subroutines coded in other languages (FORTRAN, COBOL, PL/1) makes this system an extremely powerful tool. While MARK IV is not suitable for statistical analysis, the creation of subfiles for use with generally available statistics packages, such as OSIRIS or SPSS, is a relatively simple task.

MARK IV is a well-documented system with thorough, well-illustrated texts. More than being efficient from the user's perspective, it is a well-tuned system with relatively low cpu overhead for file access, information retrieval, sorting, etc.